

TCT Meeting Notes

Portland, OR
December 10, 2014

Participants:

Kristine Koch, EPA
Elizabeth Allen, EPA
Sean Sheldrake, EPA
Rich Muza, EPA
Burt Shephard, EPA
Alanna Conley, EPA
Genevieve Angle, NMFS
Matt McClincy, DEQ

Tom Gainer, DEQ
Jennifer Peterson, DEQ
Rose Longoria, Yakama
Kristin Callahan, Yakama
Gail Fricano, Five Tribes
Erin Madden, Five Tribes
Scott Coffey, CDM Smith
Jeanette Mullin, CDM Smith

The purpose of the meeting was to provide the TCT members with an opportunity to discuss EPA's responses to the TCT's comments on the draft of Section 2 of the Portland Harbor Feasibility Study (FS), which EPA is currently rewriting.

Kristine Koch indicated this meeting is the final resolution period for FS Section 2. EPA will be revising FS Section 2 after the meeting to be completed by the end of January 2015. This is the only time that the group will meet to discuss the comments but EPA will be available to discuss specific concerns with TCT members after this meeting. EPA indicated there may be a follow-up for Appendix B2 – Ecological Preliminary Remediation Goal (PRG) Derivation as EPA's responses are not complete yet.

TCT Question: What will we be receiving in preparation for the remedy review board meeting?

Response: EPA indicated that the TCT group will be provided the FS and information on what the proposed conceptual remedy will be. EPA will not be submitting a full package to the TCT prior to the remedy review board.

FS Section 2 Response to Comments

EPA then opened the floor to the TCT group to bring up any comment responses they would like to discuss with EPA. The group decided to start with the responses to FS Section 2 Appendix B2 – Ecological PRG derivation.

Appendix B2: Ecological PRG Derivation Response Discussion **DEQ**

Comment No. B2-1: Jennifer Peterson indicated the benthic approach is her biggest concern and she would like to discuss this issue further with EPA.

Comment No. B2-21: Jennifer Peterson generally agrees with EPA's response to this comment; however, the averages from smallmouth bass tissue and associated sediment are good tools to look at to generate biota-sediment accumulation factors (BASFs). Kristine Koch indicated the problem is with how the fish were composited. Fish were collected from both sides of the river and this created problems with the BASF as fish from the cleaner side were composited with fish from the more contaminated side. There is not enough tissue data to get a good relationship. Where good BASFs were not able to be generated, EPA might look to using something from the national data set.

Elizabeth Allen asked Jennifer Peterson to expand on her Comment No. B2-21. To Jennifer, the PRGs are based on using accumulation factors, she wants to understand EPA's rationale for not using BASFs. For some of the other tissue besides smallmouth bass, she thinks the data and BASFs are still valid. She would like EPA to expand on why this data cannot be used.

Elizabeth Allen indicated it depends on the chemical being evaluated. EPA is using the food web model to recalculate the ecological PRGs for organochlorine compounds. It does appear that it is not a linear function. As sediment concentration increases, bioaccumulation decreases based on K_{ow} . Jennifer Peterson indicated she does not want the methodology dismissed without due consideration and she thinks it was dismissed too early based on LWG's original evaluation.

The target threshold in fish is the same no matter where you are in the river. Target tissue concentrations in smallmouth bass are for both as prey and direct risk/affect to the fish. Elizabeth Allen indicated that we could end up with different PRGs for different parts of the river using the methodology proposed by Jennifer Peterson as there are different accumulation rates in different parts of the river.

DEQ's primary concern is with how PRGs would be applied to performance monitoring in the future. EPA does plan to monitor at smaller spatial scales, both biota and sediment. EPA used a national number for the current PRG derivation (national BASF).

Kristine Koch indicated it was difficult to develop the BASFs because only one fish was collected from each side of the river for each river mile. The sediment data was not collected randomly but was biased towards areas of contamination which causes issues with establishing a relationship between tissue and sediment concentrations. Elizabeth Allen does not think that a single fish result would provide a better prediction than the food web model and thinks we would get multiple PRGs throughout the river.

EPA asked Jennifer Peterson if DEQ's analysis indicated that EPA's PRGs are way off base. Jennifer Peterson indicated it depends. For example PCB PRGs are low due to human health so ecological concerns are covered; however, for other chemicals like phthalates it may not be covered for ecological risk. EPA clarified that background values will only impact PRGs

for RAO 2 as the PRGs for all other RAOs, including ecological PRGs, are above background. Burt Shephard indicated no trend was observed between what is in sediment and what is in fish tissue for phthalates. Jennifer indicated there is only one area in the river where phthalates are an issue. Completing a biota-sediment accumulation regression (BSAR) across the whole river is problematic but if we went into River Mile 4, we could produce a BASF in this limited area and see the relationship. Jennifer indicated that we should not average over the whole river as the relationship will never be seen; we need to look at the relationship in specific areas. Burt Shephard indicated it is feasible to look at specific areas and he utilized the national average of four due to simplicity and time considerations. However, Burt indicated there are chemicals or group of chemicals where there is not enough data to develop a BASF.

Five Tribes

Comment B2-13: EPA indicated that if this information was taken from the BERA, then it will be referenced in the text and EPA will not be re-doing re-evaluation as this document is complete. However, if it is a new evaluation, then EPA will add this information into the text. EPA's ecological risk assessor will provide additional input for this response.

Comment B2-27: Gail Fricano clarified that this comment is not questioning the technical aspects of the work just how the text is organized. The reference to aquatic life criteria does not follow the way the text is written, and she suggested that EPA just move the text to where this is first discussed. Also, it was noted during the meeting that the website link referenced in the text no longer works and EPA will insert citations or a table instead of a web link.

Comment B2-28: Gail Fricano clarified that references should be grouped by author and then publication year. EPA informed the group that the reference list is not the final list but just provides the references for the applicable section and the final reference list will be compiled once all sections of the FS have been completed.

FS Section 2 - Main Text Response Discussion

Five Tribes

Comment No. 5: Gail Fricano asked about the change to the RAO 6 language indicated in the response. EPA indicated that the language for all the RAOs has been revised to "Eliminate, reduce, or control unacceptable risks..." In addition, RAO 3 text was revised such that it now considers ARARs for human consumption of fish from contaminated water. EPA is running the revised RAOs language by EPA Headquarters and then EPA will be submitting the revised RAOs to the TCT for review. Gail asked about the impact of the language change for the RAOs and Kristine Koch indicated you can eliminate risk, reduce risk (like cancer risk which cannot be eliminated but only reduced), or control risk through an institutional control. Gail was concerned that the language does not say reduce to "acceptable" levels and therefore you could reduce risk to unacceptable levels.

Comment No. 7: Gail Fricano thinks this sentence is awkward and suggested the following revision, “EPA guidance defines COCs as a subset of the contaminants of potential concern (COPCs) that ~~is~~ ~~are~~ identified in the RI/FS as needing to be addressed by the response action proposed in the ROD.” EPA agreed to relook at the wording of this sentence.

Comment No. 11: Gail Fricano recommends going back to the original text. EPA suggested adding the red text for clarification, “Based on the sums **of the concentrations** of...” (and then remove the other “sum” words in the sentence).

Comment No. 17: Gail Fricano asked if EPA would be recalculating the wildlife PRGs using the food web model and EPA responded affirmatively.

Comment No. 40: Gail Fricano thought the last sentence added by EPA is confusing and suggested it be deleted. EPA will look at wording and revise the use of the term “mitigation.”

Comment No. 41: Gail Fricano asked about the reference to the TI guidance in this statement and lack of further information. EPA indicated there is a TI waiver subsection provided in FS Section 2.

Comment No. 64: Gail Fricano indicated the issue is with the “passing” of the statistical significance test. The language is confusing as to what the condition needs to be in terms of the statistical significance. EPA will revise the text so that conditions are clearer.

Comment No. 66: Gail Fricano asked that EPA reference Appendix B in the main text and EPA indicated the reference would be added.

Comment No. 75: EPA agreed to make the language more general by inserting “are typically more suited....”

Comment No. 76: Gail Fricano asked if EPA could clarify the language to say the non-representative options could still be used in the remedy and that the representative options are what was used in the FS evaluations. EPA will look at rewording this sentence/text.

Comment No. 94: Gail Fricano requested that EPA use more general language such as “...may include the following steps.” EPA will look at rewording this sentence/text.

Comment No. 95: EPA will revise the text.

Comment No. 96: Gail Fricano indicated the use of the phrase “at the Portland Harbor Site” in the following sentence was confusing and she recommended that it be deleted:

“At the Portland Harbor Site, isolation of the contaminated sediment is expected to be accomplished through the installation of sheet pile walls or cofferdams or by accessing the contaminated material during low river stages.”

EPA will delete the phrase.

Comment No. 97: EPA will clarify text to state T4 is the only CDF for which there is a proponent and a design which makes it more viable than other options.

Yakama Comments

Comment No. 80: Kristin Callahan indicated the minimum deposition rate should be based on what is considered effective for monitored natural recovery (MNR) and not on precision of the survey. EPA responded that two bathymetric surveys were evaluated and this value is what was identified as providing certainty that deposition is occurring based on comparison of the two bathymetric surveys. This rate identifies depositional areas not MNR effectiveness. Note that EPA will be moving this type of information into Section 3. EPA will revise the language in Section 3 to make it clear it is a minimum rate that assures deposition is occurring and not a measure of MNR effectiveness.

Comment No. 87: This comment is asking that EPA justify the long-term effectiveness of the GAC. What happens when GAC absorption capacity has been reached? EPA indicated that treatability studies have not been conducted at Portland Harbor and this is just an FS-level evaluation. Kristine Koch indicated studies show GAC is only effective at low concentrations for contaminants like PCBs.

Comment No. 85: EPA indicated the “deposition” criterion is a range in this context and is not a deposition rate.

DEQ Comments

DEQ indicated one of their broad overarching concerns is how PRGs will get us to the RAOs. A main concern is with porewater/transition zone water (TZW) and how we account for bioaccumulation in this zone.

Comment No. 4: DEQ indicated that when you look at numerical PRGs for RAO 4 (Groundwater), they do not account for the bioaccumulation pathway due to fish/shellfish consumption as stated in the text of RAO 4. DEQ recommended that the language get pushed to RAO 2. EPA agreed with DEQ that porewater is considered surface water and needs to meet surface water PRGs. DEQ wants to ensure that, for example, caps are designed to account for porewater concerns. The State considers ambient water quality criteria (AWQC) as ARARs for TZW and porewater. Porewater is the biologically active zone. EPA indicated a groundwater plume would have to meet RAO 3 and RAO 4 in this zone (i.e., porewater zone).

While DEQ stated that the PRGs in RAO 4 do not cover the bioaccumulation pathway, Burt Shephard disagreed and stated that all criteria address the bioaccumulation pathway whether it is a surface water PRG, groundwater PRG, etc. except for contact herbicides. Burt Shephard indicated these criteria are surrogates for the internal dose.

EPA modified RAO 3 to allow for addition of AWQC for ingestion + consumption. EPA will apply RAO 3 into the porewater zone. EPA will not be requiring that the AWQC be met in groundwater below the porewater zone.

Comment No. 15: EPA agrees with DEQ that porewater is significant.

Comment No. 28: EPA will be adding a 10^{-6} and hazard quotient (HQ) columns to the PRG tables to clarify the source of the PRG value.

Comment No. 37: EPA clarified that while a petroleum groundwater plume on its own is exempted from CERCLA, once it co-mingles with other contaminants it falls under CERCLA and can be regulated (it is no longer a product and is now considered a waste).

Comment No. 112 and 113: DEQ is trying to understand how tap water PRGs were pulled into the PRGs as they are not ARARs. EPA clarified that when there was not an MCL, EPA looked at regional screening levels (RSLs) based on 10^{-6} risk. However, this is not true for manganese, which is based on a neurological effect and not a cancer risk. The human health risk assessment did not identify manganese as a risk. EPA pulled in chemicals that they know are problematic for the site. The risk assessment was only completed for the river and not sources to the river. EPA needed to come up with what is protective for the whole site. EPA is open to further discussion on manganese. The draft PRG table shows a manganese value of 320 micrograms per liter ($\mu\text{g/L}$). It is a non-cancer endpoint. EPA expects if there is a groundwater plume from a primary or secondary manganese source, DEQ would conduct a site-specific evaluation to see what could be attained. EPA can look at waiving the number if it cannot be achieved. A full analysis would need to be conducted to show the value cannot be met.

RAO Revisions

Kristine Koch will be sharing the RAO revisions with EPA Headquarters in the near future and anticipates sharing the revised RAOs with the TCT the first week of January 2015. Rose Longoria asked if the TCT could be provided with the RAOs now for review. Kristine Koch indicated she could release them as long as they were not transmitted further and with the understanding they are draft.

Gail Fricano emailed her subconsultant's response to EPA's response to comments on Appendix B1 to EPA.

Schedule

Kristine Koch drafted another version of the Portland Harbor schedule. The deadline to complete documentation needed for the Remedy Review Board is November 2015.

Proposed Review Cycle Change

EPA asked if the TCT would be willing to consider reviewing the FS sections at the same time as the LWG to save time to meet the schedule; specifically to give EPA more time to provide response to comments and revise the text after comments are received. EPA did not request input at the meeting but asked the group to consider and get back to them.

EPA will submit the FS section by section to the TCT. EPA will present technical concepts and evaluation results that would be used to draft each section to the TCT in advance of receiving the draft section so there should not be any surprises in the text. With a simultaneous review, EPA will look at resolving issues with the government team first and then providing response to LWG. EPA will make sure the TCT is ok with EPA's response before providing it to the LWG.

The FS needs to be completed by August 2015 in order to be ready for the Remedy Review Board. EPA intends to submit the complete FS to all partners/stakeholders in August 2015.

Erin Madden brought up issue of providing comments in parallel with LWG. If the document is changed as a result of TCT's comments, then LWG will want to see those changes. EPA indicated the Remedy Review Board provides another opportunity for parties to bring up technical issues.

The LWG is being given 45 days for review and technical evaluations.

Rose Longoria asked if Kristine Koch could share her schedule so the TCT can think about the revised approach of TCT reviewing the document in conjunction with LWG. Kristine indicated she would share it with the TCT. Rose indicated she would talk with her management about this option. DEQ thinks the linear process is more advantageous than the simultaneous review, which they think would be more problematic.

Kristine Koch indicated EPA Headquarters will also be conducting a detailed review of the FS document and may modify it. She will be working with EPA Headquarters for each section by section review.

Remedy Review Board

TCT asked if for some reason the November 2015 deadline is not met, would we have to wait another full year for the Remedy Review Board. EPA responded "no" because the Remedy Review Board meets quarterly. Portland Harbor will be given two days by the Remedy Review Board given the size and complexity of the project. Contractors are not

allowed to be present at the Remedy Review Board meeting. The Remedy Review Board will be meeting in Portland, Oregon. The first day consists of information gathering and Kristine Koch, Sean Sheldrake, and Elizabeth Allen will be presenting. Then the Remedy Review Board will deliberate on the second day. Kristine Koch and Sean Sheldrake can listen to their deliberations but they cannot participate.

The Remedy Review Board will provide comments within 60 days and then Kristine Koch will respond to the comments. The comments and responses will become part of the public record.

EPA Headquarters Involvement

The TCT asked if it was common for EPA Headquarters to be so heavily involved in a Superfund Site. The EPA Administrator will be signing the Record of Decision for Portland Harbor. Hudson River is the only other site where EPA Headquarters has been heavily involved. However, all sites over a certain dollar value get an independent review.

Staff under Mr. Wolford will be reviewing the Portland Harbor site. While Karl Gustavson has been detailed from the Corps to EPA for this project, EPA Headquarters has indicated they have different views than Karl.

Additional Items

We will need to follow-up on the core profile maps. The next TCT meeting is scheduled for January 14, 2015. Kristine Koch will be at Battelle conference and Sean Sheldrake is scheduled to run the meeting. Karl Gustavson will be part of the discussion on the core profile maps.

Dioxins/Furans: EPA has developed PRGs for five dioxin/furan congeners and developed preliminary remedial action levels (RALs). EPA is reviewing the data to compare total dioxin/furans against the five congeners. EPA will share the dioxin/furan RAL information with the TCT by email before the January 6th meeting scheduled with LWG. If the TCT has questions, let Scott Coffey know as Kristine Koch will be out of the office during the holidays.

An interim FS Section 2 will be sent to the LWG after EPA addresses TCT's comments in the text. EPA will share the revised PRG table in early January 2015 with the TCT and the interim FS Section 2 at the end of January 2015 when it is sent to LWG.